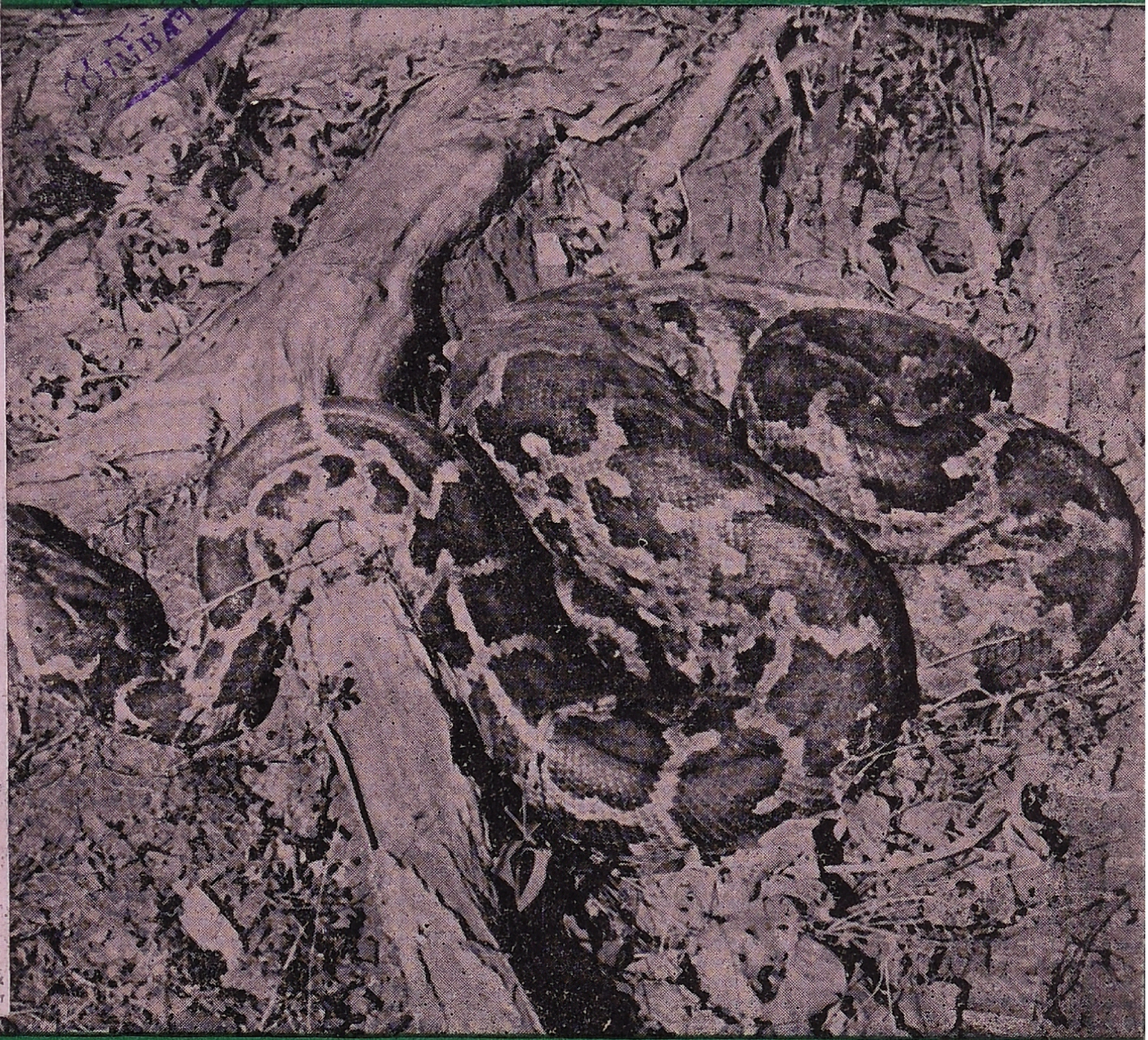
SOME LARGE REPTILES
OF
MADRAS STATE

By

M. A. BADSHAH

State Wildlife Officer

WL-230: Some Large Reptiles Of Madras State



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FOREWORD

The Fauna of Madras State is remarkable for its variety. Hitherto interest in wildlife was confined chiefly to mammals and birds with the result some of our large notable reptiles like the Python, Rat Snake and Monitar Lizard received little attention. These reptiles are commonly looked upon with horror and contempt and treated as pests. These reptiles are diminishing in numbers for lack of appreciation of their function in maintaining the delicate balance of nature.

It is unfortunate that from some places these reptiles have been completely exterminated on account of relentless persecution for various reasons, chiefly for their skins which command a lucrative foreign market, bringing in its wake, a sudden increase in the population of rodents particularly mice and rats damaging food crops.

One of the numerous problems in preservation of wildlife in the urgent need to change the attitude of the people and help them to understand the value of various species of wildlife. Our apathy and indifference towards the fauna in general is largely due to our ignorance of their functions. The basic need for the survival of the fauna in any country is the education of its people in matters relating to wildlife conservation.

To make the people appreciate the role of some of our reptiles in economy of our nation and save them from extinction, the State Wildlife Board of Madras, recommended that

a publication with suitable illustrartions should be brought out and distributed among the members of the public to enlighten them on the subject. The Indian Board for Wild-life have also recommended that python should be given protection as it is fastly disappearing.

Sri M. A. Badshah, State Wildlife Officer, Madras, takes keen interest in Natural History and Photography of animal life and in this booklet he had incorporated the data collected in Mudumalai Wildlife Sanctuary on reptiles as well as given some authentic and interesting photographs.

I am certain that the information contained in this booklet will go a long way to help the public to appreciate the value of the reptiles and save them from extinction.

MADRAS,
14*th October* 1963.

T. JEYADEV,
Chief Conservator of Forests.

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INTRODUCTION

Under vertebrates or animals with back bone, reptiles form an interesting group. Reptiles are cold-blooded animals having no constancy of temperature of their body. They assume the temperature of the surrounding air or water. Their body covering consists of scales. Snakes, lizards, crocodiles and turtles constitute the reptile group. Slaughter of reptiles for purposes of trade is enormous. In 1932 India exported two and a half million reptile skins and in 1933 the exports increased to nearly three million. Reptile skins are durable and can be finished in any colour according to the demand.

Snakes are a wonderful example of specialisation among the reptiles. The conventional transportation method by legs has been replaced by the movement of the ribs. The extreme ends of the ribs are attached to flat scales of the belly. The ribs move like the legs of a millipede. The attached scales then move like the treads of a tyre. The sinuous movements of the body help in the progression. There are snakes which can move as fast as an arrow, some swim in water, and others climb trees. Many burrow in the ground. All these activities indicate that they are not handicapped for want of limbs. In fact the presence of limbs would be a handicap for life in burrows.

The tongue which is long and forked is merely a sense organ used for feeling. The snake can flick its tongue with its mouth shut, through a snick. It has no poison. It has been said

that there is no animal with a venomous tongue except man. The snake has no eyelids. The eyes are covered by something like watch glasses. That accounts for their fixed hypnotic look. They have no external ear. The internal ear is degenerate. They are very hard of hearing. They detect noises by the vibrations passing through the ground and the body.

Snakes as a group are carnivorous preying on small mammals, frogs, insects, birds, and fish. In turn they are eaten by weasels, eagles and kites. Cannibalism is not unknown among the snakes. Their deadly enemy is mungoose not to speak of man. There will be few or no snake in the territory occupied by mungoose.

Though held in dread and constantly destroyed, snakes have occupied both wilderness areas and settled country. Few snakes are poisonous. The others are harmless, even useful.

As the snake grows with age, the skin is cast or shed. This shedding of the skin occurs periodically two to four times in a year. During the molting period, snakes become listless and lose their appetite. The shedding starts at the snout by rubbing it against some hard object. When the old skin peels off at the head, the snake emerges out of the slough in bright new shining coat.

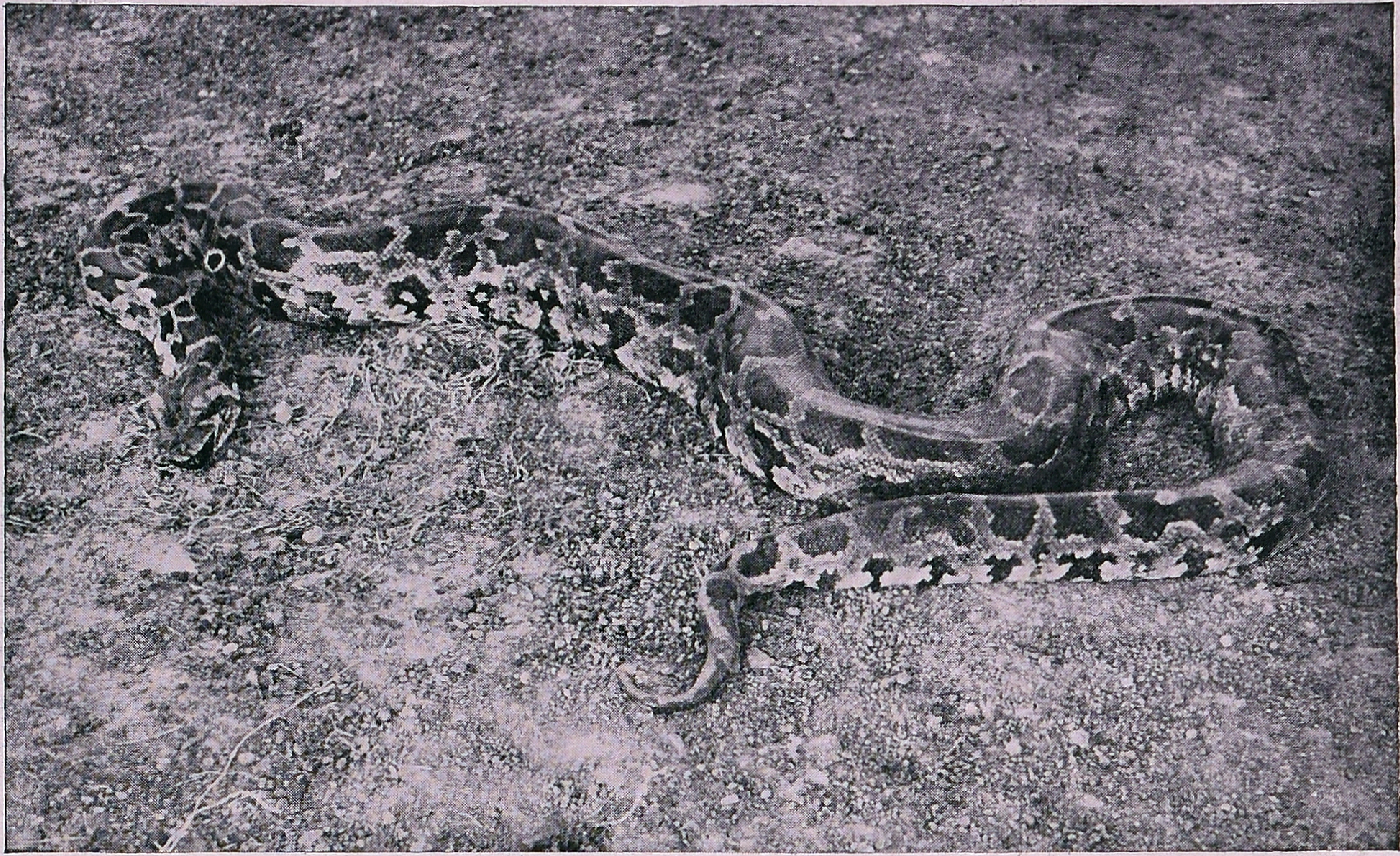
Like all other animals snakes possess defensive armament. Some have stink glands which secrete an odorous liquid when attacked or handled. The foul smell emanating from these glands becomes so strong that the snake is immediately

dropped. Some snakes at the approach of danger start hissing and inflate their bodies to appear big and formidable before their adversary.

Some snakes like the python lay eggs and others like the vipers bringforth young ones. The former category is called oviparous and the latter viviparous. In either case little or no attention is paid to the eggs or young ones by most snakes. The eggs are hatched by the warmth of the sun and the young ones fend for themselves.

The large reptiles in Madras State Forests are represented by python, rat snake, Monitor lizard and crocodile.

Reptiles form a part of our natural environment. They are important links in the food chain. They feed upon certain animals and also provide food for others. Direct benefits from snakes to man may be slight but the indirect benefit is great. Generally they destroy vermin. But for the rat snake which controls the rapidly increasing population of rats, few grains of food will reach us. The lizards swallow thousands of insects which if allowed to grow unchecked will be prejudicial to the interests of man. Likewise each species of the reptile group has an assignment in the scheme of nature which indirectly helps mankind to lead a happy life on this planet.



PYTHON—Mudumalai Wildlife Sanctuary.

INDIAN PYTHON
(Python molurus)

Tamil—Malai Pambu

Description

Pythons are the largest representatives of the snake group and are found in our State in small numbers in a few places. The largest python recorded in Mudumalai Wildlife Sanctuary measured 17 feet. Specimens exceeding 20 feet in length have been recorded elsewhere. It is one of our familiar snakes tolerating the presence of humans at close quarters. The colour of the python varies from light yellowish to dark brown or grey with irregular dark blotches. The colouration and markings are so varied and diffused that it becomes difficult to describe its handsome coat in precise terms.

Habitat

It is essentially a resident of thick forests rather partial to rocky parts. It is also found along rivers. It occurs throughout the peninsular India and also in Ceylon, Malaya, Burma, Siam, Africa and Australia with some slight variations in size and colour.

Habits

It is chiefly nocturnal in habits, seldom moving in day time. It is oviparous. After laying the eggs, the mother unlike other snakes coils herself round them for incubation and remains till the eggs are hatched out. It is a prolific breeder laying as many as 107 eggs at one time as recorded by M. A. Smith (1957).

LEATHERY EGGShells recovered from the nest hole of a Python in Mudumalai Wildlife Sanctuary.

The egg is larger than that of a goose. The period of incubation extends over two months. The hatchlings measure more than 2 feet.

A nest of a python was located in the Mudumalai Wildlife Sanctuary in March 1963, in compartment 8 of Theppakadu Block along the lower slopes of Moyar. A rectangular opening $4\frac{1}{2}' \times 1'$ between two sheets of rocks with a depth of about 12′ formed the nest hole. Thirtyfour leathery eggshells were recovered from this nest. Some eggs appear to have been rolled down the slopes as seen from the splashes of yolk on the rocks below.

By the help of its prehensile tail it locks the branches and suspends itself from the tree waiting for its prey. Unlike other snakes it is extremely lethargic and slow. Even if it is surrounded by humans in its natural habitat it is neither agitated nor does it assume an offensive attitude like other snakes.

Its food consists of mammals, birds and reptiles. It can swallow even a deer. On March 29, 1961, a python was seen swallowing a spotted deer in Mudumalai Wildlife Sanctuary. On May 16, 1961, visitors to the sanctuary saw a python swallowing a young calf of gaur (Indian Bison). The mother bison resisted its advances towards her calf and tried to attack it but all her attempts proved futile. The feeding habits of python are characterised by its ability to swallow the prey whole with fur or feathers as the case may be. This feat is accomplished by special features in the mechanism of its body. The upper and lower jaws are joined by an elastic hinge which allows the lower jaw to become disengaged and drop down from the upper jaw. The two halves of the lower jaw, in turn are attached in front by an elastic joint which permits

PYTHON—Coiled round after a full meal.

them to work independently of each other. The fine sharp teeth slope down towards the throat so that the struggle of the prey merely sets it more firmly on the teeth. The skin between the scales is elastic enough to allow the body covering to expand. There is no breast bone or shoulder girdle to restrict the expansion of the body. The ribs are attached loosely to the back bone and being free on the underside they allow considerable expansion of the body wall. It strangles the prey to death by coiling round it using its tail first and throwing coil after coil with an unexpected suddenness and a sure and certain grip. The two spurs, one on each side of the vent (18″ from the tip of the tail) get into the flesh of the victim and give him a hold for complete encirclement and ruthless killing giving no chance for its victim to escape.

After a full meal it becomes practically immobile staying at one place coiled round for long periods.

The adult pythons fast for considerable periods after a heavy meal, the period of fasting ranging from one month to six months as recorded by Mr. H. N. Ridley, writing of pythons in the Botanical Gardens in Singapore.

Python is becoming rare in Madras State and needs effective protection. Its skin and fat are of considerable economic value. Fancy articles like ladies hand bags, purses, belts and shoes are manufactured out of its skin.

Effective propaganda among the hill tribes inhabiting forests for saving this species from extinction is required, as pythons are killed by them for their fat contents for medicinal purposes. I have come across dead pythons in the forests, their stomachs ripped open and the fat contents removed.

INDIAN RAT SNAKE.

INDIAN RAT SNAKE
(Zamenis Mucosus)

Tamil—Sarai Pambu

Description

The rat snake, the largest species of the genus, attaining a length of as much as 8 to 10 feet is greenish brown in colour, scales edged with black. It is the commonest of our snakes, remarkable for its agility. When pursued it almost flies over the ground. The one caught from a watcher's hut in Mudumalai Wildlife Sanctuary measured 7 feet, 3 inches.

Habitat

It is ubiquitous inasmuch as it is found throughout India, in forests as well as around human habitations, in huts and houses, in search of rats. It is also found in the vicinity of water, being fond of frogs and toads. It also occurs in Ceylon, Europe, other countries in Asia, Africa, North and Central America.

Habits

Unlike the python it is mostly diurnal. The food of the rat snake (contrary to what its name may suggest) does not entirely consist of rats. It also feeds on frogs, lizards, birds and birds' eggs. It is remarkable for its speed on the ground besides being a good swimmer and climber.

When provoked it inflates its neck in poor imitation to cobra, but it is perfectly harmless being non-poisonous.

The rat snake burrows holes in the earth to deposit its eggs which number ten to twenty in a single clutch.

There are some legends connected with the rat snake. Some hold that it mates with the cobra and others believe that it sucks the udders of a cow dry and then kills it. Some believe that its bite causes blindness among elderly people. Its fat is supposed to cure leprcsy when applied externally. Rat snake should be protected as they control the population of rats which multiply very fast and cause enormous damage to food stuffs and grain. The role of rats in spreading epidemics and certain diseases is wellknown. There are very few animals which feed largely on rats and the rat snake is chief among them and its preservation is essential. Instances are not wanting of villagers having waged a war against rat snakes and destoyed them completely only to repent when in consequence they faced an over population of rats eating away their grains and vegetables both in the field and the store.

COMMON MONITOR LIZARD
(Varanus monitor)

Tamil—Udumbu

Description

The common monitor lizard is the largest of the land lizards in Madras State measuring 3 to 4 feet in length.

Adults are brownish above with black spots, lower parts being yellowish or mottled. The young are dark olive with numerous white spots. Each dorsal scale is surrounded by a ring of small granules. The tongue is long and deeply forked retractible into a basal sheath. The limbs are well developed and provided with powerful claws. The tail is compressed. Its protective colouration harmonising with the surroundings makes it difficult to spot it.

Habitat

The common Indian monitor is a resident of forests as well as countryside occurring throughout India. It is also found in Ceylon, Burma and Nepal, frequenting drier parts of the country.

Habits

It is swift-footed and when chased it runs away with the tail held up disappearing in a hole or the hollow of a tree. Sometimes to escape detection it will lie motionless on the ground when it can be picked up by its tail. Boldly it enters forest camps, tents and huts searching for food.

COMMON MONITAR LIZARD.

When provoked it distends its body with air which it expells making a loud hissing noise lashing the tail on the ground simultaneously to frighten away the enemy. When cornered it will not hesitate to bite hard. Its firmhold is proverbial. It is difficult to dislodge it when it gets hold of an object. There are many legends connected with its firmhold.

Eggs are deposited in a hole or ant-hill and covered with leaves and rubbish. The female then departs and never returns to its nest. A single clutch consists of 20 to 25 eggs. Eggs are laid during the hot weather. Its flesh as well as eggs are considered a delicacy. The aborigines believe that its flesh is a cure for rheumatism. Its blood applied to the loins is considered to be a specific for lumbago. The jungle tribes hunt them with dogs or catch them with nooses.

Its food consists of small mammals like little rats, mice, birds and their eggs; large insects and whatever other vermin that come in its way. It climbs trees easily to rob the contents of birds nests.

At times the monitor is destructive to poultry, but certainly it renders a good service to man by controlling the population of vermins which, if allowed to multiply unchecked, will make human life on this planet miserable. This species deserves strict protection.

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NATURE IS BUT A NAME FOR AN EFFECT WHOSE CAUSE IS GOD

—*Cowper*

Waterfall at Moyar Gorge in Mudumalai Wildlife Sanctuary where the Python's nest hole was observed.